

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A transmission device enabling different spreading factors while preserving a common scrambling code for transmission in a code division multiple access cellular mobile radio system, the device comprising, ~~on transmission,~~

spreading means for spreading blocks of symbols with the different spreading factors;

and

scrambling means for applying a scrambling code of length Q_{MAX} which is a multiple of said different spreading factors, to blocks of Q_{MAX} basic symbols obtained by spreading ~~by means of~~ with any of said spreading factors.

2. (Currently Amended) ~~The device according to claim 1, including, on transmission, for spreading~~ A transmission device enabling different spreading factors while preserving a common scrambling code for transmission in a code division multiple access cellular mobile radio system, the transmission device spreading K incoming sequences by means of K respective spreading codes of respective length Q_k ($k=1, \dots, K$) which is a sub-multiple of a maximum length Q_{MAX} , and scrambling the spread sequences obtained in this way, the transmission device comprising:

grouping means for grouping ~~the various~~ data symbols of ~~the~~ a kth incoming sequence (k=1, ..., K) into different blocks of Q_{MAX}/Q_k symbols[,]; and

spreading means for spreading the different blocks from the kth incoming sequence (k=1, ..., K) by means of the corresponding spreading code of length Q_k to obtain a spread sequence including different spread blocks of length Q_{MAX} ,

scrambling means for scrambling each of the K spread sequences ~~obtained in this way~~ using generated by the spreading means by applying a scrambling code of length Q_{MAX} which is a multiple of the spreading codes.

3. (Currently Amended) A reception device enabling different spreading factors while preserving a common scrambling code for transmission in a code division multiple access cellular mobile radio system, the device comprising, ~~on reception,~~

descrambling means for applying a scrambling code of length Q_{MAX} which is a multiple of said different spreading factors, to spread blocks of Q_{MAX} basic symbols obtained by spreading ~~by means of~~ with any of said spreading factors; and

despreading means for despreading with said spreading factors said blocks of Q_{MAX} basic symbols descrambled by said descrambling means.

4. (Currently Amended) ~~The device according to claim 3~~ A reception device enabling different spreading factors while preserving a common scrambling code for transmission in a

code division multiple access cellular mobile radio system, including, on reception, for the
reception device descrambling and despreading an incoming sequence by means of K respective
spreading codes of respective length Q_k ($k=1, \dots, K$) which is a sub-multiple of a maximum
length Q_{MAX} , the reception device comprising:

descrambling means for descrambling said incoming sequence of spread blocks of Q_{MAX}
basic symbols obtained by spreading with the spreading codes using a scrambling code of length
 Q_{MAX} which is a multiple of the spreading codes $[[,]]$;

grouping means for grouping ~~the~~ basic symbols of the spread and descrambled sequence
~~obtained in this way~~ in different spread blocks of length $Q_{MAX}[[,]]$; and

despreading means for despreading the spread blocks ~~obtained in this way by means of~~
with the K respective spreading codes to obtain K despread sequences formed of different blocks
of Q_{MAX}/Q_K symbols ($k=1, \dots, K$).

5. (Original) A mobile station for a mobile radiocommunication system, comprising a
device according to claim 1.

6. (Currently Amended) ~~An entity, in particular~~ A base transceiver station $[[,]]$ for a
mobile radiocommunication system, comprising a device according to claim 1.

AMENDMENT UNDER 37 C.F.R. § 1.111
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7. (New) A mobile station for a mobile radiocommunication system, comprising a device according to claim 2.

8. (New) A base transceiver station for a mobile radiocommunication system, comprising a device according to claim 2.

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9. (New) A mobile station for a mobile radiocommunication system, comprising a device according to claim 4.

10. (New) A base transceiver station for a mobile radiocommunication system, comprising a device according to claim 4.
